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EXAMINER

MATZEK, MATTHEW D

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/734,006  
Filing Date: December 10, 2003  
Appellant(s): REICHMANN ET AL.

Alyssa A. Dudkowski  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 8/14/2008 appealing from the Office action mailed 2/11/2008.

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,174,602	MATSUI et al.	01-2001
2002/0111596	FLETCHER et al.	08-2002
6,506,873	RYAN et al.	01-2003

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### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A. Claims 1-3 and 10-28 are rejected under 35 U.S.C. 103(a) as being obvious over Matsui et al. (US 6,174,602 B1) in view of Fletcher et al. (US 2002/0111596 A1).

i. Matsui et al. disclose a biodegradable fibrous article excellent in bulkiness, softness, stretchability and feeling, which comprises **A** a low heat-shrinkable fiber component, and **B** a high-heat shrinkable fiber component comprising an aliphatic polyester, which is a mixture of aliphatic polyesters with differing melting points (abstract). The **B** component comprises at least two aliphatic polyesters **H** and **S**; the difference in melting point between them is at least 20°C (col. 19, lines 16-19). The soft aliphatic polyester **S** is amorphous (col. 31, lines 12-14). The hard aliphatic polyester **H** may comprise 90-10 weight percent of the **B** polymeric composition and the soft aliphatic polyester **S** may comprise 10-90 weight percent of **B** (col. 17, lines 1-13). The applied invention may be used to produce a nonwoven fabric (col. 4, lines 1-10). L-lactide is used as the aliphatic polyester (col. 8, lines 5-15). The nonwoven web of the applied invention may be a spunbond nonwoven web (col. 9, lines 35-40). Figures 1C and 1G illustrate multi-component embodiments wherein at least a portion of an outer surface of the multi-component fibers comprises the polymer blend. The applied invention may be used in a number of different articles such as undergarments, clothing, etc. and may be

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used in all of the claimed structures because the applied invention possesses the claimed structure (col. 11, lines 40-45). The applied invention may be in either staple fiber or continuous filament form (col. 9, lines 36-50).

ii. Matsui et al. are silent to the use of a poly-alphaolefin, but teaches the use of poly-caprolactone. Fletcher et al. teach material suitable for a flushable absorbent assembly and teaches the use of amorphous poly-alphaolefin or a poly-caprolactone [0078]. Therefore, because these two polymers were art-recognized functional equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the poly-alphaolefin in Fletcher et al. for the poly-caprolactone taught by Matsui et al.

iii. Matsui et al. do not specifically disclose the claimed structures of instant claims 16-22, but the applied invention may be used in a number of different articles such as undergarments, clothing, etc. and may be used in all of the claimed structures because the applied invention possesses the claimed structure (col. 11, lines 40-45).

B. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui et al. (US 6,174,602 B1) in view of Fletcher et al. (US 2002/0111596 A1) as applied to claim 1 above, and further in view of Ryan et al. (US 6,506,873 B1). Matsui et al. teach the use of lactides, which comprise isomers, but fails to teach what type of lactide and the quantity of the lactide (col. 8, lines 5-20).

i. Ryan et al. relates to nonwoven fibrous material, which includes a plurality of polylactide containing fibers (Abstract and col. 1, lines 16-17). The nonwoven can have utility in medical, hygiene, disposable and durable nonwoven applications where

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biodegradability can advantageously be combined with a fabric or laminate function. Some applications are diapers, training pants, and feminine absorbent articles, among others (col. 3, lines 28-38). The preferred fibers include at least one component, polylactide or polylactic acid (PLA). The reference teaches multi-component fibers that include at least one component based upon polylactide and at least one additional component, which may be based upon polylactide or upon a material other than polylactide (col. 3, lines 56-67 through col. 4, lines 1-3). The reference teaches that preferred melt stable polylactide compositions preferably include a D-lactide concentration of less than about 5% by weight (col. 16, lines 36-54). Among the polymers that can be used as other components in a multi-component fiber include polyolefins, polyamides, aromatic/aliphatic polyesters, biodegradable aliphatic polyesters and biodegradable aliphatic-aromatic polyesters (col. 10, lines 53-67). The reference also teaches the use of polycaprolactone (PCL), polyhydroxy propionate (or butylate, capreolate or valerate), among others (col. 11, lines 47-57). Fiber formation processes include melt spinning, melt blowing and spunbonding (col. 12, line 2 & col. 27, lines 1-2). The reference also teaches carding (col. 26, lines 50-52).

ii. Since Matsui et al. and Ryan et al. are from the same field of endeavor (i.e. degradable aliphatic polyester fibers), the purpose disclosed by Ryan et al. would have been recognized in the pertinent art of Matsui et al.

iii. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Matsui et al. the aforementioned low

levels of D-lactide with the motivation of minimizing the D-lactide levels to improve the polymer's ability to crystallize as disclosed by Ryan et al. (col. 16, lines 36-54).

**(10) Response to Argument**

- Appellant argues that Examiner has failed to make a *prima facie* case of obviousness because the combination of Matsui and Fletcher would not lead one of ordinary skill in the art to arrive at the claimed invention because Examiner has improperly relies on the Fletcher publication to equate two polymers for use as a component of a degradable fiber when those polymers are disclosed for an unrelated purpose in the Fletcher publication. Therefore, one of ordinary skill in the art would not have looked at the Fletcher publication to find two polymers being equivalent for use in a degradable fiber.
- Matsui et al. disclose a biodegradable fibrous article excellent in bulkiness, softness, stretchability and feeling comprising poly-caprolactone. Fletcher et al. teach material suitable for a flushable absorbent assembly and teaches the use of amorphous poly-alphaolefin or poly-caprolactone [0078]. Fletcher et al. demonstrate that poly-alpha olefin and poly-caprolactone were art-recognized functional equivalents at the time the invention was made. Therefore, one of ordinary skill in the art would have found it obvious to substitute the poly-alphaolefin in Fletcher et al. for the poly-caprolactone taught by Matsui et al. Examiner has demonstrated that both Matsui and Fletcher are both directed to biodegradable fabrics and in combining the references is attempting to show that amorphous poly-alphaolefin and poly-caprolactone are art-recognized functional equivalents in the field of biodegradable fabrics. Therefore,

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one of ordinary skill in the art at the time of the invention would have found it obvious to have substituted the poly-alphaolefin in Fletcher et al. for the polycaprolactone taught by Matsui et al.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Matthew D Matzek/

Examiner, Art Unit 1794

/Norca L. Torres-Velazquez/  
Primary Examiner, Art Unit 1794

Conferees:

/Carol Chaney/  
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QAS, TC1700